Patent Claims

1. A thermal insulation composite, comprising two metal sheets with a thermally insulating core material, wherein a fire-protection layer has been introduced between the thermally insulating core material and at least one of the metal sheets.

2. The thermal insulation composite according to claim 1, wherein the fire-protection layer comprises an intumescent composition based on an alkali metal silicate, expandable graphite, or expandable mica.

3. The thermal insulation composite according to claim 2, wherein the intumescent composition comprises a hydrous sodium silicate.

4. The thermal insulation composite according to any of claims 1 to 3, wherein the metal sheet is composed of steel or of aluminum.

5. The thermal insulation composite according to any of claims 1 to 4, wherein the thermally insulating core material is composed of molded polystyrene foam, of extruded polystyrene foam sheets, of polyurethane foams, or of mineral wool.

6. A process for producing a thermal composite via bonding of two metal sheets and of a thermally insulating core material, which comprises introducing a fire-protection layer between the thermally insulating core material and at least one metal sheet.

7. The process according to claim 6, wherein the core material is coated on at least one surface with an intumescent composition to form the fire-protection layer, and is then adhesive-bonded to the metal sheets.

8. The process according to claim 6, wherein the core material is adhesive-bonded to the metal sheets with an adhesive comprising the intumescent composition.

9. The use of the thermal insulation composite according to any of claims 1 to 6 for the production of storage buildings or of cold-store buildings.